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L5: Entry 2 of 2

File: USPT

Jan 28, 1997

US-PAT-NO: 5597569

DOCUMENT-IDENTIFIER: US 5597569 A

TITLE: Bryodin 2 a ribosome-inactivating protein isolated from the plant Bryonia dioica

DATE-ISSUED: January 28, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Siegall; Clay B.	Edmonds	WA		
Gawlak; Susan L.	Bellevue	WA		
Marquardt; Hans	Mercer Island	WA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Bristol-Myers Squibb Company	New York	NY			02

APPL-NO: 8/ 324301 [PALM]

DATE FILED: October 20, 1994

PARENT-CASE:

CROSS REFERENCE This application is a continuation-in-part of U.S. patent application Ser. No. 08/141,891, now abandoned, filed Oct. 25, 1993, the content thereof is hereby incorporated by reference in its entirety.

INT-CL: [6] A61 K 39/44, C07 K 14/415, C07 K 16/46

US-CL-ISSUED: 424/183.1; 424/178.1, 530/300, 530/350, 530/370, 530/391.7, 536/23.1, 536/23.4, 536/23.5, 536/23.6, 514/2, 514/8, 435/69.1, 435/69.7, 435/71.1, 435/172.4, 435/171.3, 435/320.1

US-CL-CURRENT: 424/183.1; 424/178.1, 435/320.1, 435/69.1, 435/69.7, 435/71.1, 514/2, 514/8, 530/300, 530/350, 530/370, 530/391.7, 536/23.1, 536/23.4, 536/23.5, 536/23.6

FIELD-OF-SEARCH: 424/178.1, 424/179.1, 424/183.1, 530/391.7, 530/391.9, 530/391.5, 530/403, 530/300, 530/350, 530/370, 530/810, 530/812, 530/395, 530/402, 536/23.1, 536/23.4, 536/23.5, 536/23.6, 514/2, 514/8, 435/69.1, 435/69.7, 435/71.1, 435/172.1, 435/172.3, 435/320.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL

5242813

September 1993

Pastan

435/70.21

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
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2194948	August 1987	GBX	
WO91/00295	January 1991	WOX	

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C. Z. Amorim et al., "Screening of the Antimalarial Activity of Plants of the Cucurbitaceae Family," Mem. Inst. Oswaldo Cruz 86:177-180, 1991.
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P.-C. Montecucchi et al., "N-terminal sequence of some ribosome-inactivating proteins," Int. J. Peptide Protein Res. 33:263-267, 1989.
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ART-UNIT: 186

PRIMARY-EXAMINER: Chan; Christina Y.

ASSISTANT-EXAMINER: Gambel; Phillip

ABSTRACT:

The present invention discloses a new ribosome-inactivating protein, bryodin 2, isolated from the plant Bryonia dioica. This ribosome-inactivating protein (RIP) is a type I RIP having a single polypeptide chain and no cellular receptor domain. Like many type I RIPs, bryodin 2 has a molecular weight of about 27,000 daltons and a pI of 9.5. Bryodin 2 differs from previously identified ribosome-inactivating protein in its amino acid composition, amino acid sequence, and toxicity in vitro and in vivo. Bryodin 2 is useful, as are other type I ribosome-inactivating proteins, as an abortifacient, immunomodulator, anti-tumor or anti-viral agent. Compositions comprising bryodin 2 as an immunoconjugate or fusion molecule are particularly useful to kill cells of a target population.

41 Claims, 16 Drawing figures

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TITLE: Bryodin 2 a ribosome-inactivating protein isolated from the plant Bryonia dioica

Abstract Paragraph Left (1):

The present invention discloses a new ribosome-inactivating protein, bryodin 2, isolated from the plant Bryonia dioica. This ribosome-inactivating protein (RIP) is a type I RIP having a single polypeptide chain and no cellular receptor domain. Like many type I RIPs, bryodin 2 has a molecular weight of about 27,000 daltons and a pI of 9.5. Bryodin 2 differs from previously identified ribosome-inactivating protein in its amino acid composition, amino acid sequence, and toxicity in vitro and in vivo. Bryodin 2 is useful, as are other type I ribosome-inactivating proteins, as an abortifacient, immunomodulator, anti-tumor or anti-viral agent. Compositions comprising bryodin 2 as an immunoconjugate or fusion molecule are particularly useful to kill cells of a target population.

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